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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,667	04/13/2001	Manjari Kuntimaddi	174-885	1721
23517 7590 12/12/2007 BINGHAM MCCUTCHEN LLP 2020 K Street, N.W. Intellectual Property Department WASHINGTON, DC 20006			EXAMINER HUNTER, ALVIN A	
			ART UNIT 3711	PAPER NUMBER
			MAIL DATE 12/12/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary

Application No.

09/833,667

Applicant(s)

KUNTIMADDI ET AL.

Examiner

Alvin A. Hunter

Art Unit

3711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,8-23,39 and 45-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,39 and 45-51 is/are allowed.
- 6) ☒ Claim(s) 1-3,8-18 and 21-23 is/are rejected.
- 7) ☒ Claim(s) 19 and 20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 39, 45, and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shimosaka (USPN 5816937) in view of Blahak et al. (USPN 4631319).

Regarding claim 39, Shimosaka discloses a golf ball having a core and a cover and at least a layer between the cover and core wherein a layer covering the core is formed of polyurethane. Shimosaka does not disclose the polyurethane being an IPN. Blahak et al. discloses composition comprising a homopolymer or copolymer including an uretdione group (dimer) wherein the composition can be used to make an interpenetrating polymer network such as those listed in column 10, lines 60 through 68. Shimosaka notes that the material for the layer is not critical although polyurethanes, ionomer, etc are well known ones. One having ordinary skill in the art would have found it obvious to have a layer covering the cover made of an IPN having an uretdione group, as taught by Blahak et al., in order to improve strength.

Regarding claims 45 and 46, Shimosaka et al. does not note if the material for the layers are thermoset or thermoplastic. Blahak et al. discloses that the thermoset composition can be combined with thermoplastic compositions in order to form IPNs.

One having ordinary skill in the art would have found it obvious to have the layers thermoplastic and/or thermoset so long as the strength is improved.

Claims 1-3, 8-18, and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy, III et al. (USPN 6290614) in view of Frisch et al. (USPN 4742128).

Regarding claims 1, 18, and 22, Kennedy, III et al. discloses a golf ball having a solid core and a cover and at least a layer between the cover and core wherein a layer covering the core is formed of RIM polyurethane. Kennedy, III et al. does not disclose the polyurethane being an IPN. Frisch et al. discloses an interpenetrating polymer network formed of RIM polyurethane. One having ordinary skill in the art would have found it obvious to have a layer covering the cover made of a polyurethane IPN, as taught by Frisch et al., in order to improve strength. Further, it is submitted that that shear category is at least one less than that of which is free of an IPN being that the composition has improved strength.

Regarding claim 2, Kennedy, III et al. notes that the core, intermediate layer, or cover can be made of a RIM polyurethane. In combination with Frisch et al., one having ordinary skill in the art would find it obvious to have any of these layers to be made of a IPN in order to improve strength.

Regarding claim 3, Kennedy, III et al. discloses the cover having a hardness greater than 15 Shore A and the golf ball having a COR greater than 0.7 See (examples).

Regarding claim 8, see the above regarding claim 1. Further, Frisch et al. notes that the RIM polyurethane composition may be a semi-IPN.

Regarding claim 9, Kennedy, III et al. notes that the core, intermediate layer, or cover can be made of a RIM polyurethane. In combination with Frisch et al., one having ordinary skill in the art would find it obvious to have any of these layers to be made of a semi-IPN in order to improve strength.

Regarding claims 10-17, see the above regarding claim 1. Further, the additional limitations regarding the glass transition temperature, phase size, and melting exotherm are presumed to naturally flow from the prior art being that the office does not have the ability to compare these limitations through testing.

Regarding claim 21, Kennedy, III et al. discloses the cover having an inner and outer cover (See Figure 3).

Regarding claim 22 and 23, see the above regarding claim 1.

Allowable Subject Matter

Claims 4, 39, and 45-51 are allowed.

Claims 19 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 8/06/07 have been fully considered but they are not persuasive. Applicant argues that Fritsch require the mold to be heated higher than

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Kennedy, III et al. It is noted the Kennedy, III et al. uses 100 to 180F as an example and thus is not limiting. For this reason the above rejection has been furnished.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin A. Hunter whose telephone number is 571-272-4411. The examiner can normally be reached on Monday through Friday from 7:30AM to 4:00PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eugene Kim, can be reached on 571-272-4463. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Alvin A. Hunter, Jr.